

AMENDMENTS TO THE CLAIMS

1. (Original) A prosthetic foot comprising:
a foot plate, the foot plate comprising a resilient material capable of flexing along its length;
an ankle plate spaced from the foot plate and disposed generally above the foot plate;
a fore ankle block comprising a compressible material and disposed below the ankle plate; and
an aft ankle block comprising a compressible material and disposed below the ankle plate behind the fore ankle block; wherein
the foot plate includes a cantilevered heel portion.
2. (Original) The prosthetic foot of claim 1, wherein the ankle block material is relatively soft.
3. (Original) The prosthetic foot of claim 1, wherein the heel portion extends rearward from the aft ankle block.
4. (Original) The prosthetic foot of claim 1, wherein the foot plate comprises a fore portion and an aft portion, and the fore and aft portions comprise a unitary whole.
5. (Original) The prosthetic foot of claim 4, wherein the fore ankle block is sandwiched between the ankle plate and the fore portion of the foot plate, and the aft ankle block is sandwiched between the ankle plate and the aft portion of the foot plate.
6. (Original) The prosthetic foot of claim 1, wherein the fore ankle block and the aft ankle block have different compliance characteristics.
7. (Original) The prosthetic foot of claim 6, wherein the aft ankle block is more compliant than the fore ankle block.
8. (Original) The prosthetic foot of claim 1, wherein the foot plate and the ankle blocks flex in a cooperative manner to provide substantially smooth and continuous rollover transition from heel-strike to toe-off.
9. (Original) The prosthetic foot of claim 1, wherein the foot plate has a tapered thickness along its length, such that the thickness increases from a heel section to an arch section and decreases from the arch section to a toe section.

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10. (Original) The prosthetic foot of claim 1, wherein the ankle plate has a tapered thickness along its length, such that the thickness increases from a forward portion to a rearward portion.

11. (Original) The prosthetic foot of claim 1, wherein the ankle plate is integrally formed with an upwardly extending attachment section.

12. (Original) A prosthetic foot comprising:

a foot plate, the foot plate comprising a resilient material capable of flexing along its length;

an ankle plate spaced from and disposed generally above the foot plate; and

an ankle block comprising a compressible material disposed below the ankle plate, the ankle block being subdivided into at least two separate portions, including a fore portion and an aft portion; wherein

the foot plate includes a cantilevered heel portion.

13. (Original) The prosthetic foot of claim 12, wherein the ankle block material is relatively soft.

14. (Original) The prosthetic foot of claim 12, wherein the cantilevered heel portion extends rearward of the aft ankle block portion.

15. (Original) The prosthetic foot of claim 12, wherein the foot plate comprises a fore portion and an aft portion, and the fore and aft portions comprise a unitary whole.

16. (Original) The prosthetic foot of claim 12, wherein the fore ankle block portion and the aft ankle block portion have different compliance characteristics.

17. (Original) The prosthetic foot of claim 12, wherein the aft ankle block portion is more compliant than the fore ankle block portion.

18. (Original) A prosthetic foot comprising:

a foot plate, the foot plate comprising a resilient material capable of flexing along its length;

an ankle plate spaced from and disposed generally above the foot plate; and

an ankle block comprising at least two portions of compressible material disposed closely adjacent one another and disposed below the ankle plate; wherein

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at least one of the ankle block portions is formed of a material having a compliance characteristic that is different from a compliance characteristic of at least one other of the ankle block portions.

19. (Original) The prosthetic foot of claim 18, wherein at least one of the ankle block portions is formed of a material that is relatively soft.

20. (Original) The prosthetic foot of claim 18, wherein the foot plate comprises a toe portion and a heel portion, and the toe and heel portions comprise a unitary whole.

21. (Original) The prosthetic foot of claim 20, wherein the foot plate has a tapered thickness along its length, such that the thickness increases from the heel section to an arch section and decreases from the arch section to the toe section.

22. (Original) The prosthetic foot of claim 18, wherein at least one of the ankle block portions is made of a foam material having a density between about 150 and 1500 kg/m³.

23. (Original) The prosthetic foot of claim 22, wherein at least one of the ankle block portions is made of a foam material having a density of about 500 kg/m³.

24. (Original) The prosthetic foot of claim 18, wherein the ankle block provides substantially the sole means of support and connection between the foot plate and the ankle plate.

25. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced therefrom; and

an average thickness of the rear ankle block is greater than an average thickness of the fore ankle block.

26. (New) The prosthetic foot of claim 1, wherein the ankle block material is relatively soft.

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27. (New) The prosthetic foot of claim 1, further comprising a heel portion that extends rearward of the aft ankle block.

28. (New) The prosthetic foot of claim 1, wherein the lower foot element comprises a fore portion and an aft portion, and the fore and aft portions comprise a unitary whole.

29. (New) The prosthetic foot of claim 1, wherein the fore ankle block and the aft ankle block have different compliance characteristics.

30. (New) The prosthetic foot of claim 6, wherein the aft ankle block is more compliant than the fore ankle block.

31. (New) The prosthetic foot of claim 1, wherein the lower foot element and the ankle blocks flex in a cooperative manner to provide substantially smooth and continuous rollover transition from heel-strike to toe-off.

32. (New) The prosthetic foot of claim 1, wherein the lower foot element has a tapered thickness along its length.

33. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced therefrom; and

a thickness of a rear portion of the rear ankle block is greater than a thickness of a front portion of the fore ankle block.

34. (New) The prosthetic foot of claim 33, wherein the lower foot element has a tapered thickness along its length.

35. (New) The prosthetic foot of claim 33, wherein the lower foot element is constructed of fiberglass or composite.

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36. (New) The prosthetic foot of claim 33, wherein the lower foot element is constructed of a plurality of lamina embedded in a hardened flexible polymer.

37. (New) The prosthetic foot of claim 33, wherein the fore and aft ankle blocks are constructed of urethane, rubber or foam.

38. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced therefrom; and

a rear portion of the ankle element is spaced a greater distance from the foot element than a front portion of the ankle element is spaced from the foot element.

39. (New) The prosthetic foot of claim 38, wherein the lower foot element has a tapered thickness along its length.

40. (New) The prosthetic foot of claim 38, wherein the lower foot element is constructed of fiberglass or composite.

41. (New) The prosthetic foot of claim 38, wherein the lower foot element is constructed of a plurality of lamina embedded in a hardened flexible polymer.

42. (New) The prosthetic foot of claim 38, wherein the fore and aft ankle blocks are constructed of urethane, rubber or foam.

43. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced therefrom; and

a length of the fore ankle block, as measured in a fore-to-aft direction, is greater than a length of the rear ankle block, as measured in a fore-to-aft direction.

44. (New) The prosthetic foot of claim 43, wherein the lower foot element has a tapered thickness along its length.

45. (New) The prosthetic foot of claim 43, wherein the lower foot element is constructed of fiberglass or composite.

46. (New) The prosthetic foot of claim 43, wherein the lower foot element is constructed of a plurality of lamina embedded in a hardened flexible polymer.

47. (New) The prosthetic foot of claim 43, wherein the fore and aft ankle blocks are constructed of urethane, rubber or foam.

48. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced there from;

the foot element has a substantially curvilinear shape and runs substantially horizontally when the foot is at rest on a horizontal surface; and

in at least a portion of the foot element that is positioned forward of the fore ankle block, a thickness of the foot element remains substantially constant along any line that extends in a medial/lateral direction.

49. (New) The prosthetic foot of claim 48, wherein the lower foot element has a tapered thickness along its length.

50. (New) The prosthetic foot of claim 48, wherein the lower foot element is constructed of fiberglass or composite.

51. (New) The prosthetic foot of claim 48, wherein the lower foot element is constructed of a plurality of lamina embedded in a hardened flexible polymer.

52. (New) The prosthetic foot of claim 48, wherein the fore and aft ankle blocks are constructed of urethane, rubber or foam.

53. (New) A prosthetic foot comprising:

a lower foot element, the foot element comprising a resilient material capable of flexing;

an upper ankle element spaced from the foot element and disposed generally above the foot element;

a fore ankle block comprising a compressible material and disposed between the ankle element and the foot element; and

an aft ankle block comprising a compressible material and disposed between the ankle element and the foot element; wherein

the aft ankle block is positioned rearward of the fore ankle block, and is spaced there from;

the foot element has a substantially curvilinear shape and runs substantially horizontally when the foot is at rest on a horizontal surface; and

at all points forward of the fore ankle block, the foot element includes a substantially smooth upper surface.

54. (New) The prosthetic foot of claim 53, wherein the lower foot element has a tapered thickness along its length.

55. (New) The prosthetic foot of claim 53, wherein the lower foot element is constructed of fiberglass or composite.

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56. (New) The prosthetic foot of claim 53, wherein the lower foot element is constructed of a plurality of lamina embedded in a hardened flexible polymer.

57. (New) The prosthetic foot of claim 53, wherein the fore and aft ankle blocks are constructed of urethane, rubber or foam.